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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,305	07/07/2008	Jurgen Weese	DE 040064	2562
24737 7590 09/12/2011 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER YUN, JURIE	
			ART UNIT 2882	PAPER NUMBER
			NOTIFICATION DATE 09/12/2011	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	Application No. 10/598,305	Applicant(s) WEESE ET AL.	
	Examiner JURIE YUN	Art Unit 2882	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 5) ☒ Claim(s) 1-17 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 1-5, 8, 9 and 11-14 is/are allowed.
- 7) ☒ Claim(s) 15 and 16 is/are rejected.
- 8) ☒ Claim(s) 6, 7, 10, 17-19 is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 10) ☒ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 04 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-943)   | Paper No(s)/Mail Date: ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/27/06</u>  | 6) <input type="checkbox"/> Other: ____                           |

### **DETAILED ACTION**

1. The preliminary amendment filed 8/24/06 has been entered.

#### ***Specification***

2. The disclosure is objected to because of the following informalities: page 1, line 30 to page 2, line 2 include references to claim numbers which should be removed. Appropriate correction is required.

#### ***Claim Objections***

3. Claim 6 is objected to because of the following informalities: in line 2, there is lack of antecedence for "the set of measured projections". Appropriate correction is required.
4. Claim 7 is objected to because of the following informalities: in line 4, there is lack of antecedence for "the measured projections". Appropriate correction is required.
5. Claim 10 is objected to because of the following informalities: in line 2, is "an image processing apparatus" the same "an image processing apparatus" as claimed in claim 9? If so, perhaps this should be "the image processing apparatus". In line 4, "an object" should perhaps be "the object". In lines 6-7, "a predetermined" should perhaps be "the predetermined". Appropriate correction is required.
6. Claim 17 is objected to because of the following informalities: in line 8, there is lack of antecedence for "the time dependent 3D dynamic process". Claims 18 and 19 are objected to as being dependent on an objected claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 15 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 15 and 16 are drawn to a computer program. The broadest reasonable interpretation of a claim drawn to a computer program (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01. Therefore, this claim is considered to be directed to non-statutory subject matter since it covers both transitory and non-transitory embodiments. A claim drawn to a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. 101 by adding the limitation “non-transitory” to the claim (e.g. “non-transitory computer readable medium”).

***Allowable Subject Matter***

9. Claims 1-5, 8, 9, and 11-14 are allowed.

10. The following is an examiner's statement of reasons for allowance: Prior art fails to disclose an image processing apparatus for the reconstruction of time-dependent representations  $I(x,t)$  of an object, comprising an approximation module with memory storing the N-dimensional parameter vector  $a(x)$  of a predetermined parametric model

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function  $I^*(a(x),t)$  that approximates the function  $I(x,t)$ ; an input module for the reception of a set of projections  $p_j^i$  of the object generated at times  $t_j^i$ , and an estimation module that is adapted to estimate the parameter vector  $a(x)$  with the help of said projections  $p_j^i$ , as claimed in claim 1. Claims 2-5 and 8 are allowed due to their dependency on claim 1.

Prior art fails to disclose an X-ray examination system, comprising an image processing apparatus coupled to the X-ray apparatus and adapted to estimate based on said projections  $p_j^i$  the N-dimensional parameter vector  $a(x)$  of a predetermined model function  $I^*(a(x),t)$  that approximates the representation  $I(x,t)$  of the object, as claimed in claim 9. Claims 11 and 12 are allowed due to their dependency on claim 9.

Prior art fails to disclose a method for the reconstruction of time-dependent representations of an object, comprising the following steps: approximation of the function  $I(x,t)$  which describes the representations by a predetermined parametric model function  $I^*(a(x),t)$ ; and estimation of the N-dimensional parameter vector  $a(x)$  with the help of a set of projections  $p_j^i$  of the object generated at times  $t_j^i$ , as claimed in claim 13. Claim 14 is allowed due to its dependency on claim 13.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JURIE YUN whose telephone number is (571)272-2497. The examiner can normally be reached on Monday-Friday 8:30-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jurie Yun/  
Primary Examiner, Art Unit 2882

September 6, 2011